8 x 10/100Base-TX PoE+ & 2 x Gigabit SFP Combo Ports Web-Smart Ethernet Switch

User's Manual

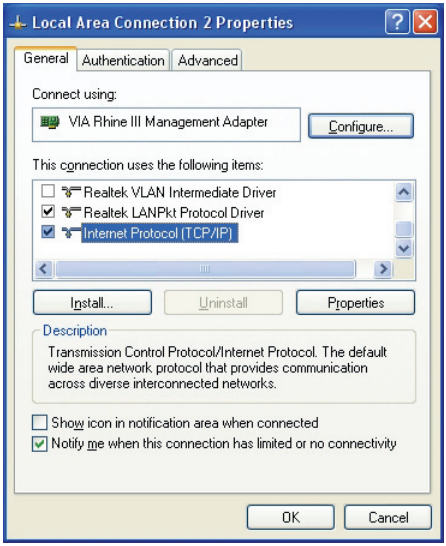
<Note> The ITE is to be connected only to PoE+ networks without routing to the outside plant.

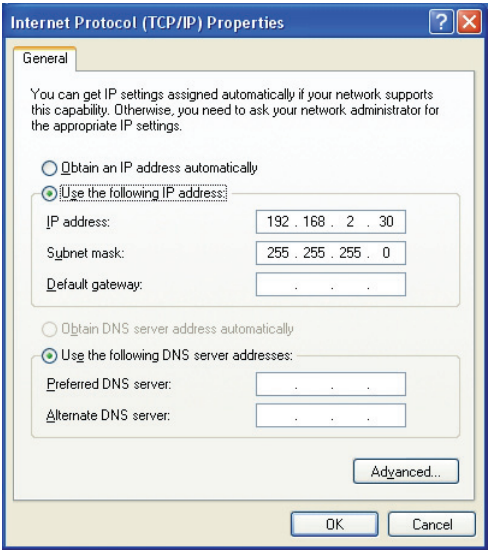
Web Smart Switch Configure

Please follow the steps to configure this Web Smart Switch.

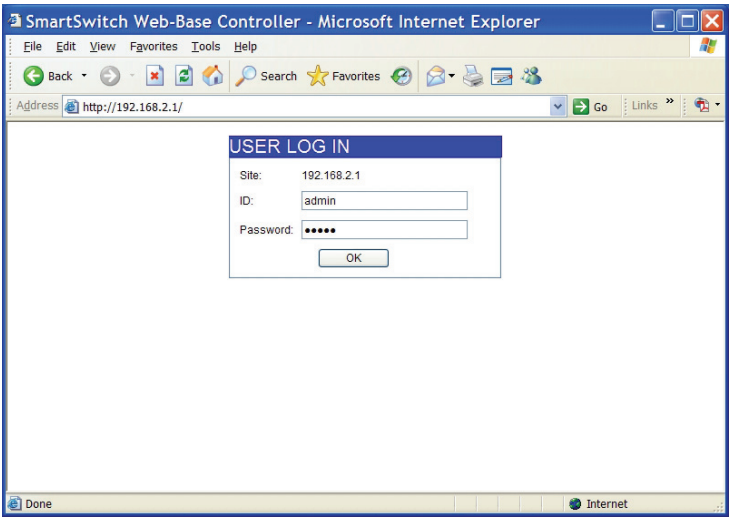
Step 1: Use a twisted pair cable to connect this switch to your PC.

Step 2: Set your PC's IP to 192.168.2.xx.




Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 2 . 30
Subnet mask: 255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Step 3: Open the web browser (like IE…), and go to 192.168.2.1 Then you will see the login screen.



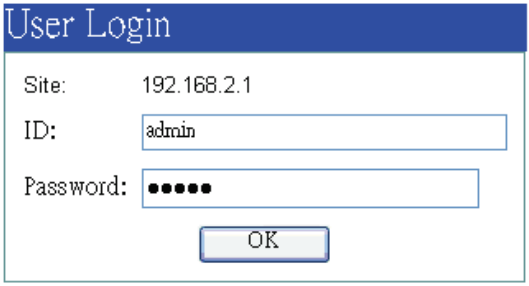
ID and the password: admin

Step 4: After the authentication procedure, the home page shows up. Select one of the configurations by clicking the icon.

When you forgot your IP or password, please use the reset button for the factory default setting

Please take the following steps to reset the Web Smart Switch back to the original default:

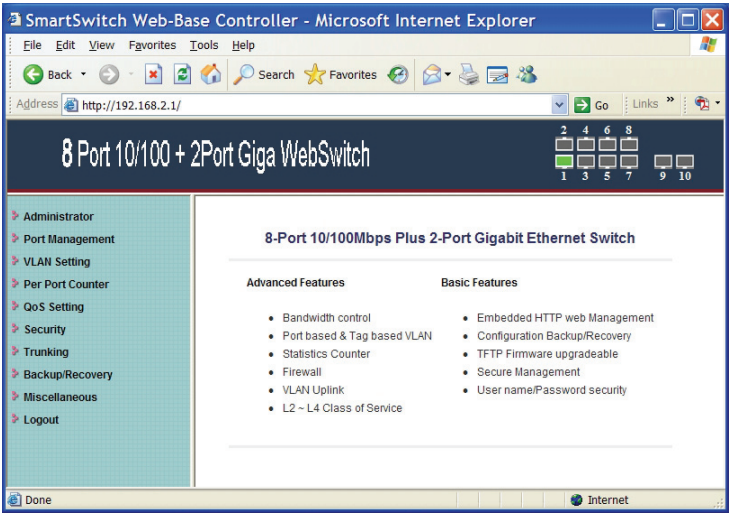
Step 1: Turn on the Web Smart Switch.
Step 2: Press and hold the reset button continuously for 5 seconds and release the reset button.
Step 3: The switch will reboot for 20 seconds and the configuration of switch will back to the default setting.



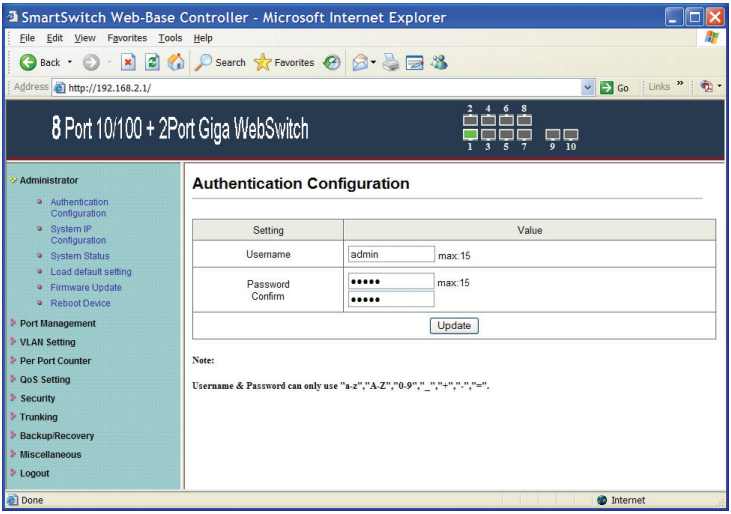
Key in the user ID and the password to pass the authentication; the user ID and the password are “admin”.
IP: 192.168.2.1
ID: admin
Password: admin

- Administrator
- Port Management

- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
- Trunking
- Backup/Recovery
- Miscellaneous
- Logout



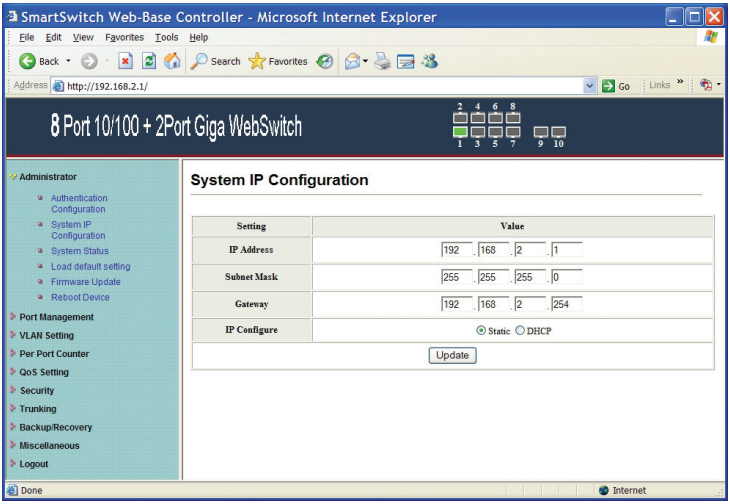
Administrator: Authentication Configuration



1. Change the user name and the password.
2. Click “Update” to confirm the new change.
3. Turn off the power and reset this switch.
4. After resetting, turn on the switch for the new change.

Now, you can use the new user name and the password.

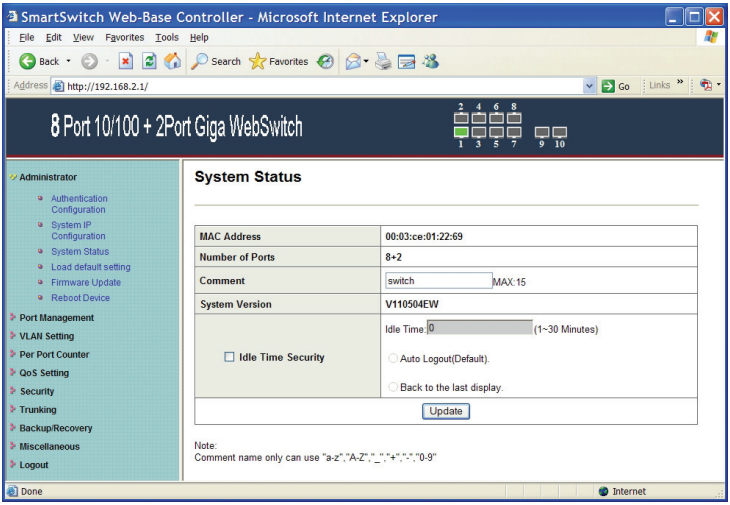
Administrator: System IP Configuration



1. Change the IP address: type the new IP address or select DHCP IP configuration.
2. Click “Update” to confirm the new change. “Setting Process OK!!” will be shown on the screen.
3. Turn off the power and reset this switch.
4. After resetting, turn on the switch for the new change.

Now, the setting of “System IP Configuration” is finished.

Administrator: System Status

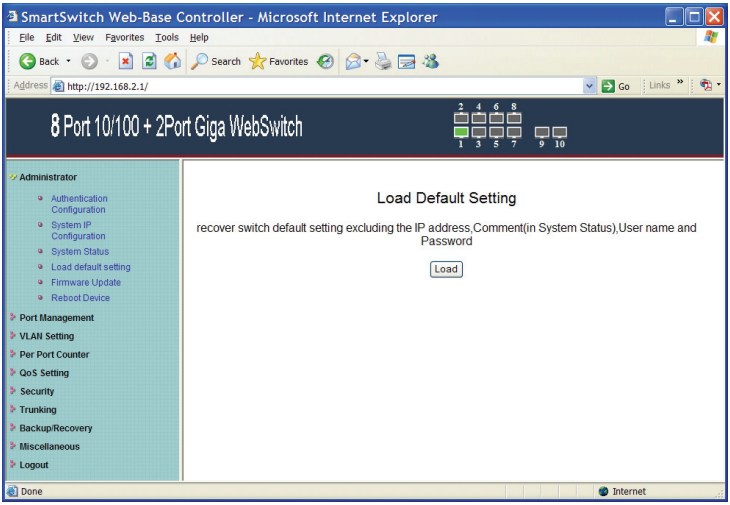


MAC address and system version will be shown on the screen.

1. Change the new comment of this switch by typing the new comment.
2. Click “Update” to confirm the new change.

Now, the setting of “System Status” is finished.

Administrator: Load Default Setting

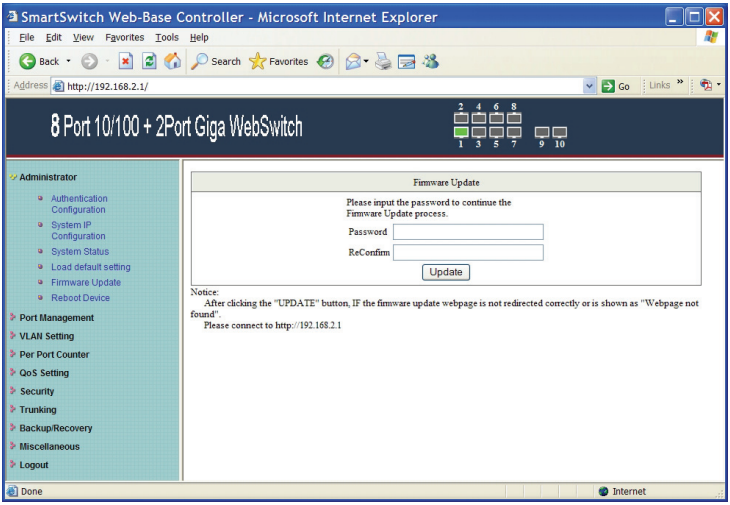


1. Click “Load” to back to the factory default setting.
2. Turn off the power and reset this switch.
3. After resetting, turn on the switch for the new change.

**Note: Recover switch default setting excluding the IP address, User name and Password.

Now, the default is loaded.

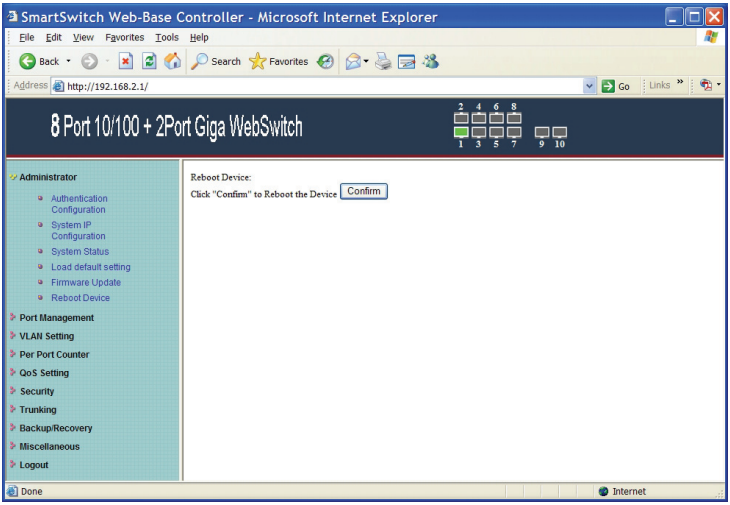
Administrator: Firmware Update



Follow the instruction on the screen to update the new firmware.

Please contact with your sales agents to get the latest firmware information.

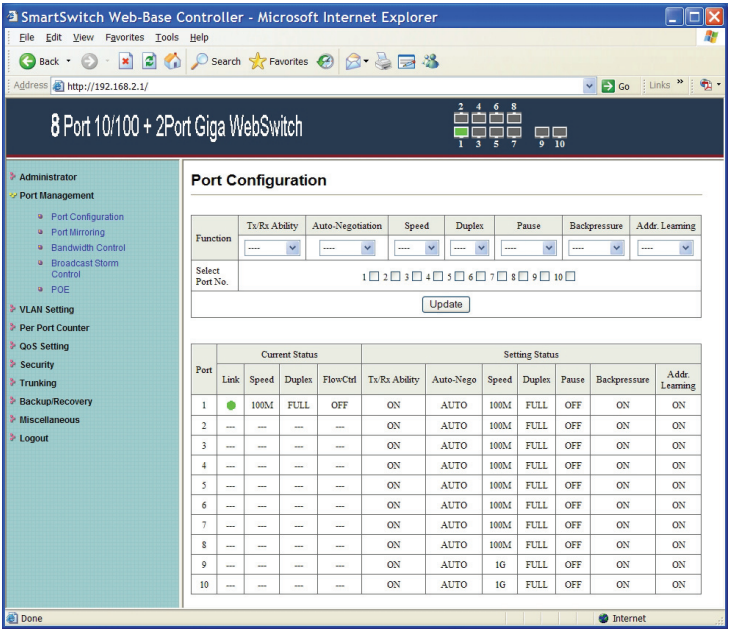
Administrator: Reboot Device



1. Click “Confirm” to reboot the device.

Now, the setting of “Reboot Device” is finished.

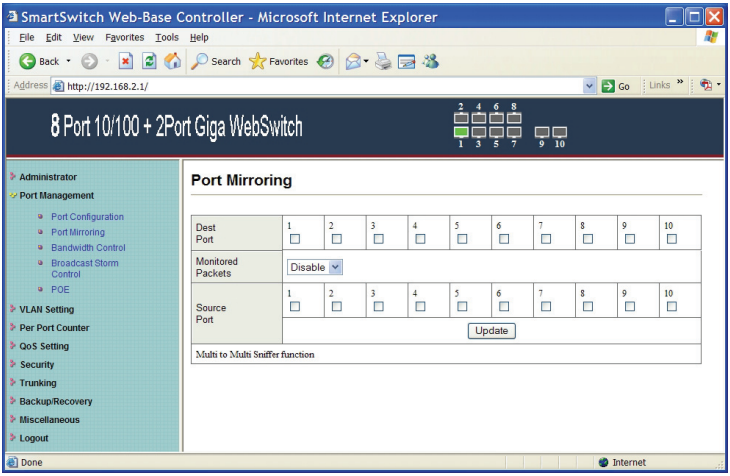
Port Management: Port Configuration



Select the “Port No.” - configure the mode below:

1. “Tx/Rx Ability”: enable/disable Tx/Rx Ability of the port.
2. “Auto-Negotiation”: enable/disable Auto-Negotiation function for the port.
3. “Speed”: select the 10M, 100M, or 1G mode for the port.
4. “Duplex”: select the port is full or half-duplex mode.
5. “Pause”: enable/disable Pause function for the port.
6. “Backpressure”: enable/disable Backpressure function for the port.
7. “Addr. Learning”: enable/disable Address Learning function for the port.

Port Management: Port Mirroring

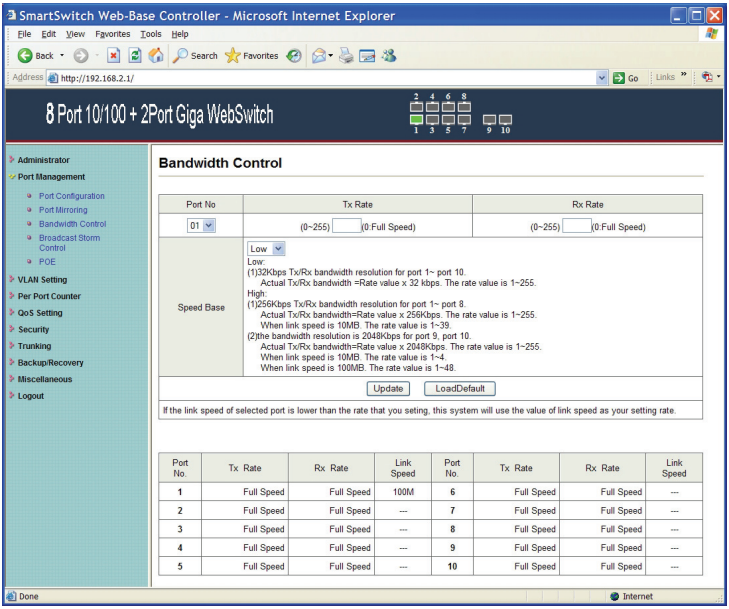


Port Mirroring is used to mirror traffic, Rx, Tx, or Tx & Rx, from Source port to Destination port for analysis.

1. Select the Destination port: by clicking the checking box of the port.
2. Select the Source port: by clicking the checking box of the port.
3. Click “Update” to save the setting.

Now, the setting of “Port Mirroring” is finished.

Port Management: Bandwidth Control


SmartSwitch Web-Base Controller - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.2.1/
Go Links
8 Port 10/100 + 2Port Giga WebSwitch
Administrator
Port Management
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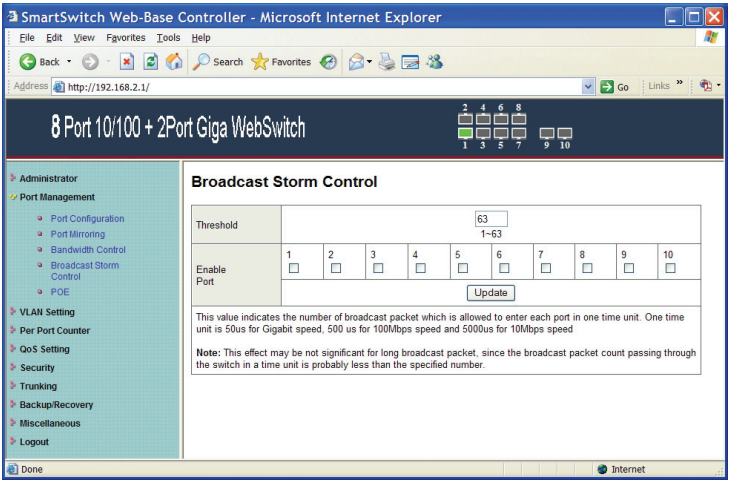
Port Mirroring
Bandwidth Control
Broadcast Storm Control
POE
VLAN Setting
Per Port Counter
QoS Setting
Security
Trunking
Backup/Recovery
Miscellaneous
Logout
Bandwidth Control
Port No
Tx Rate
Rx Rate
01
(0~255) (0:Full Speed)
(0~255) (0:Full Speed)
Speed Base
Low
Low:
(1)32Kbps Tx/Rx bandwidth resolution for port 1~ port 10.
Actual Tx/Rx bandwidth =Rate value x 32 kbps. The rate value is 1~255.
High:
(1)256Kbps Tx/Rx bandwidth resolution for port 1~ port 8.
Actual Tx/Rx bandwidth=Rate value x 256Kbps. The rate value is 1~255.
When link speed is 10MB. The rate value is 1~39.
(2)the bandwidth resolution is 2048Kbps for port 9, port 10.
Actual Tx/Rx bandwidth=Rate value x 2048Kbps. The rate value is 1~255.
When link speed is 10MB. The rate value is 1~4.
When link speed is 100MB. The rate value is 1~48.
Update
LoadDefault
If the link speed of selected port is lower than the rate that you seting, this system will use the value of link speed as your setting rate.
Port No. Tx Rate Rx Rate Link Speed Port No. Tx Rate Rx Rate Link Speed
1 Full Speed Full Speed 100M 6 Full Speed Full Speed ---
2 Full Speed Full Speed --- 7 Full Speed Full Speed ---
3 Full Speed Full Speed --- 8 Full Speed Full Speed ---
4 Full Speed Full Speed --- 9 Full Speed Full Speed ---
5 Full Speed Full Speed --- 10 Full Speed Full Speed ---
Done
Internet

1. Select the “Port No.”: you can choose port 1 to port 10.
2. “Tx Rate”: set the transmission rate of the selected port. (0: Full speed; 1~255: Specified bandwidth.)
3. “Rx Rate”: set the receiving rate of the selected port. (0: Full speed; 1~255: Specified bandwidth.)
4. “Resolution”: Low: 32kbps for port 1 ~ port 10 / High: 256kbps for port 1 ~ port 8, 2048kbps for port 9 ~ port 10.
5. Click “Update” to confirm the setting or “LoadDefault”.

Now, the setting of “Bandwidth Control” is finished.

Port Management: Broadcast Storm Control


SmartSwitch Web-Base Controller - Microsoft Internet Explorer
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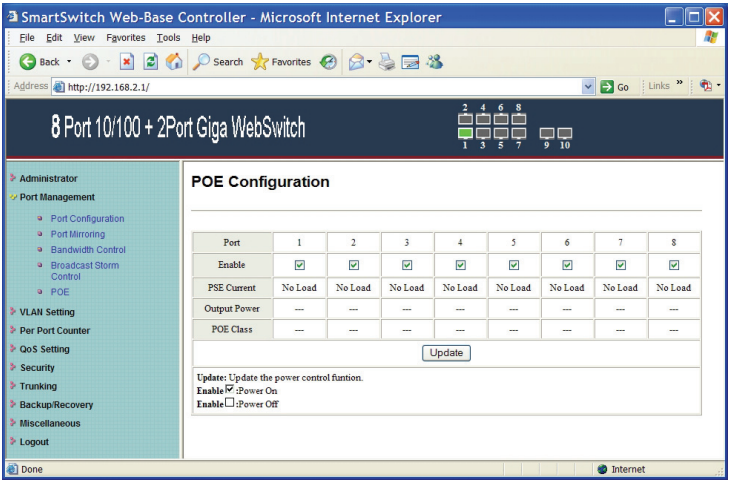
Backup/Recovery
Miscellaneous
Logout
Broadcast Storm Control
Threshold
63
1~63
Enable Port
1 2 3 4 5 6 7 8 9 10
Update
This value indicates the number of broadcast packet which is allowed to enter each port in one time unit. One time unit is 50us for Gigabit speed, 500 us for 100Mbps speed and 5000us for 10Mbps speed
Note: This effect may be not significant for long broadcast packet, since the broadcast packet count passing through the switch in a time unit is probably less than the specified number.
Done
Internet

1. “Threshold” - Set the threshold from 1~63.
2. “Enable Port” - per port to define the status of broadcast packets.
3. Click “Update” to confirm the setting.

Now, the setting of “Broadcast Storm Control” is finished.

Port Management: POE

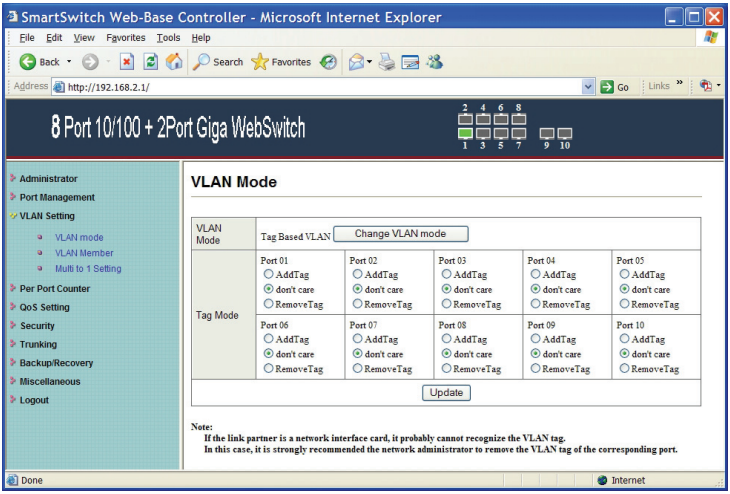


Remote access and monitor the attached PD (Powered Device) status by using Enable/Disable function.

1. “Enable”: POE of the port is able to supply power to the attached PD (Powered Device).
2. “PSE Current & Minimum Output Power”: The status of the port current and minimum output power.
3. “POE class”: each POE port will detect the class of the attached PD (Powered Device).
4. Click “Update” to confirm and finish the setting.

Now, the setting of “POE” is finished.

VLAN Setting: VLAN Mode (Tag Based VLAN)



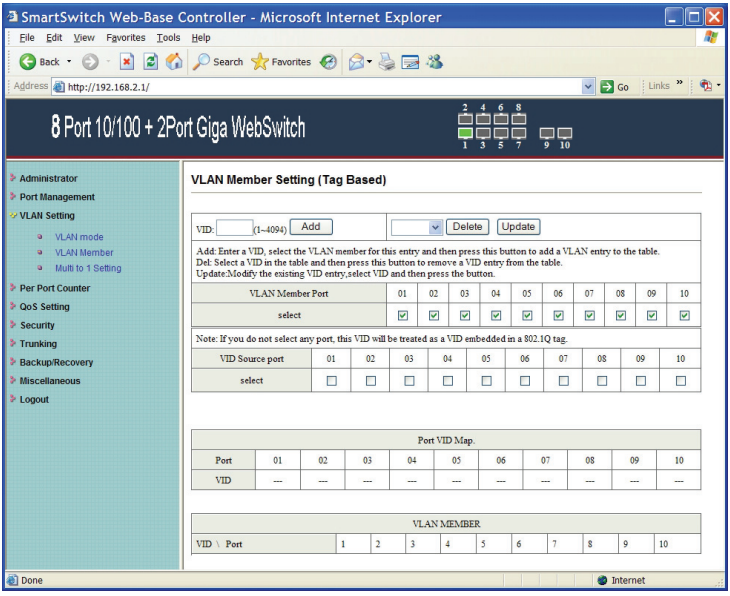
There are two VLAN modes: Port Based VLAN and Tag Based VLAN.

Click “Change VLAN mode” to select the mode.

**If the Port Based VLAN function is enabled, Tag Based VLAN and Multi to 1 setting function will be disabled automatically.

Now, the setting of “VLAN Mode” is finished.

VLAN Setting: VLAN Member (Tag Based VLAN)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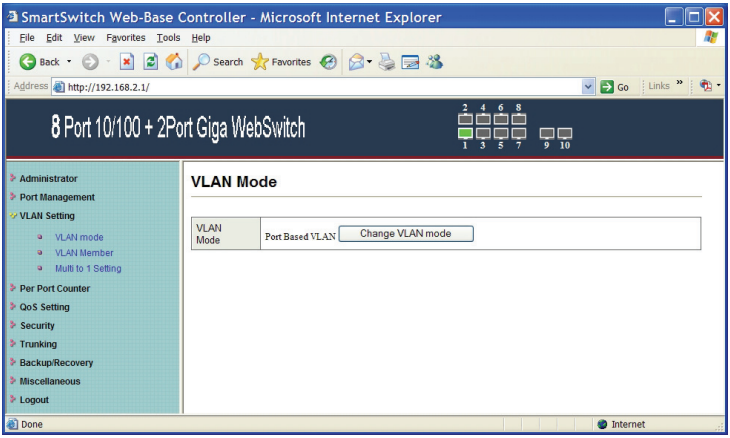
2 4 6 8
1 3 5 7 9 10
Administrator
Port Management
VLAN Setting
VLAN mode
VLAN Member
Multi to 1 Setting
Per Port Counter
QoS Setting
Security
Trunking
Backup/Recovery
Miscellaneous
Logout
VLAN Member Setting (Tag Based)
VID: (1~4094) Add
Delete Update
Add: Enter a VID, select the VLAN member for this entry and then press this button to add a VLAN entry to the table.
Del: Select a VID in the table and then press this button to remove a VID entry from the table.
Update:Modify the existing VID entry,select VID and then press the button.
VLAN Member Port 01 02 03 04 05 06 07 08 09 10
select
Note: If you do not select any port, this VID will be treated as a VID embedded in a 802.1Q tag.
VID Source port 01 02 03 04 05 06 07 08 09 10
select
Port VID Map.
Port 01 02 03 04 05 06 07 08 09 10
VID --- --- --- --- --- --- --- --- --- ---
VLAN MEMBER
VID \ Port 1 2 3 4 5 6 7 8 9 10
Done
Internet

You can select a port group.

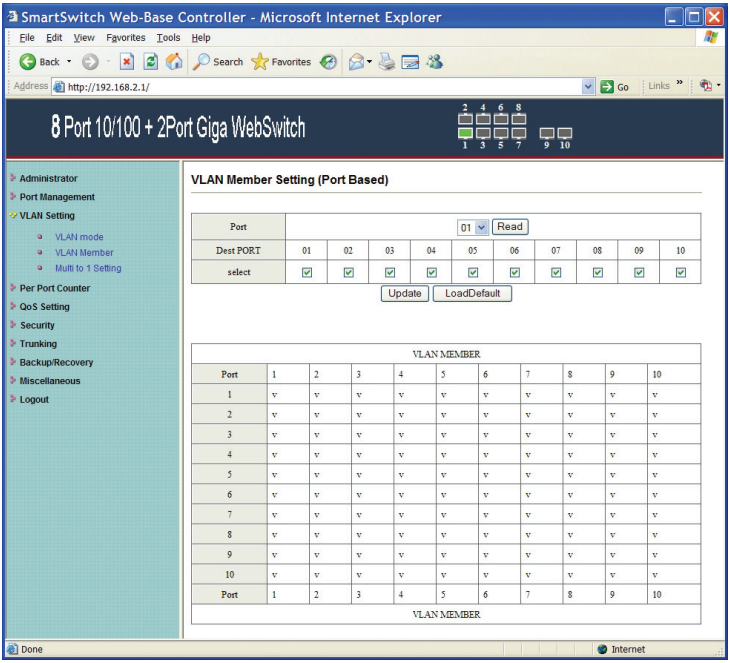
1. Click the port numbers: which you want to put them into the selected VLAN group.
2. Click “Update” to confirm and finish the setting.

Now, the setting of “VLAN Member” is finished.

VLAN Setting: VLAN Mode (Port Based VLAN)



VLAN Setting: VLAN Member (Port Based VLAN)

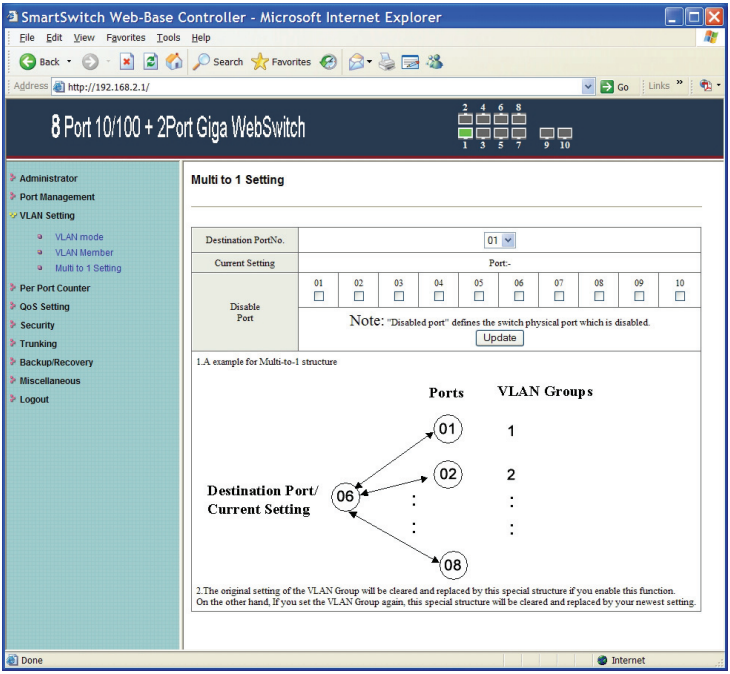


You can select a port group.

1. Click the port numbers: which you want to put them into the selected VLAN group.
2. Click “Update” to confirm and finish the setting.
3. Click “LoadDefualt” to back to the original factory setting.

Now, the setting of “VLAN Member” is finished.

VLAN Setting: Multi to 1 Setting

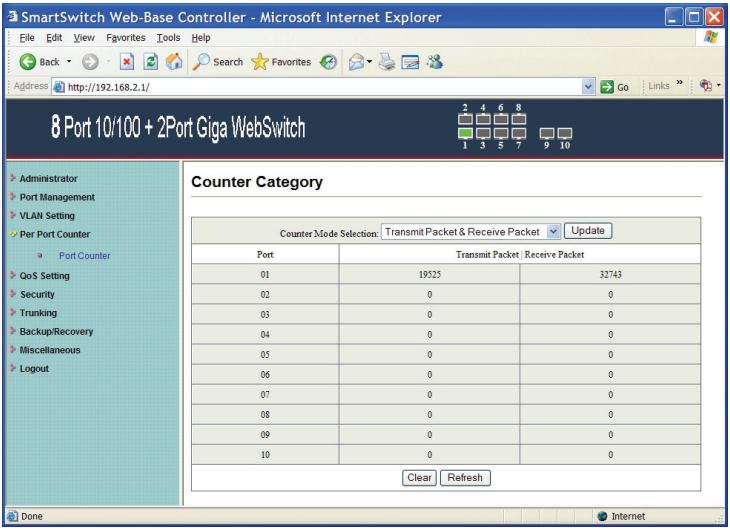


This is a special design for easily setting the switch VLAN into “VLAN Per Port“.

1. Choose “Destination Port No”.
2. Choose “Disable Port” - choose the port which you don’t want to use.
3. Click “Update” to confirm and finish the setting.

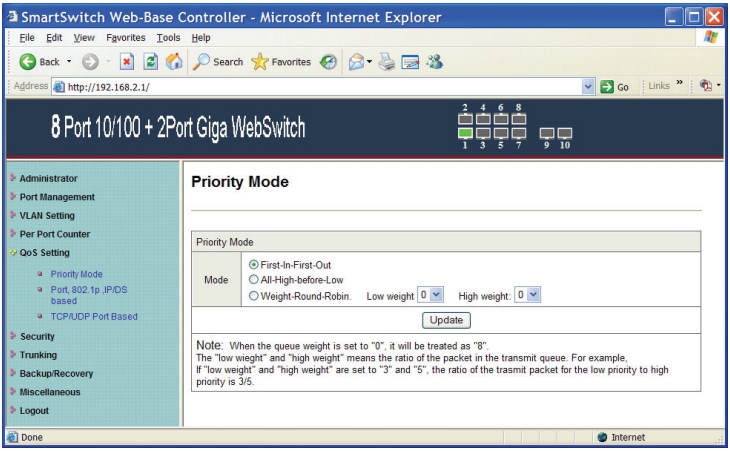
After this setting, all ports can only connect to the destination port.

Per Port Counter: Port Counter



You can read the transmitting and receiving packet of the connecting port.
Click “Refresh” or “Clear” the data.

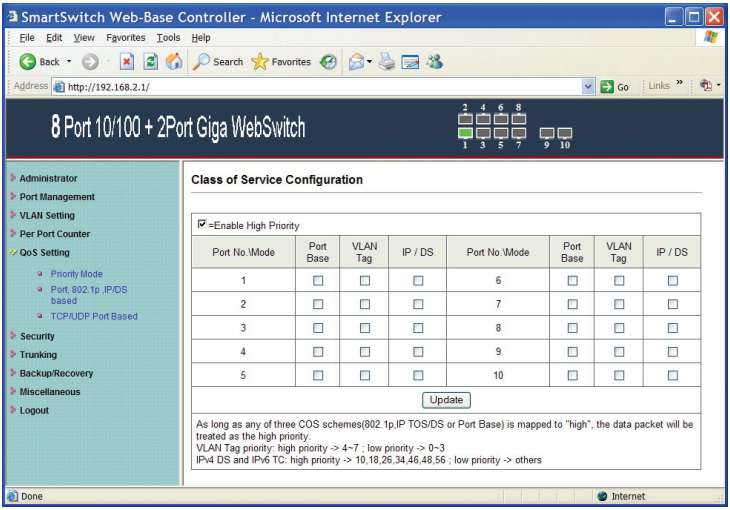
QoS Setting: Priority Mode



There are three Priority Modes to select.

1. “First-In-First-Out”: the first received packet will be firstly transmitted.
2. “All-High-before-Low”: packets set in high priority mode will be firstly transmitted before packets set in low priority mode.
3. “Weight-Round-Robin”: set the ratio of the transmitting packet for the low priority to high priority.
4. Click “Update” to confirm and finish the setting.

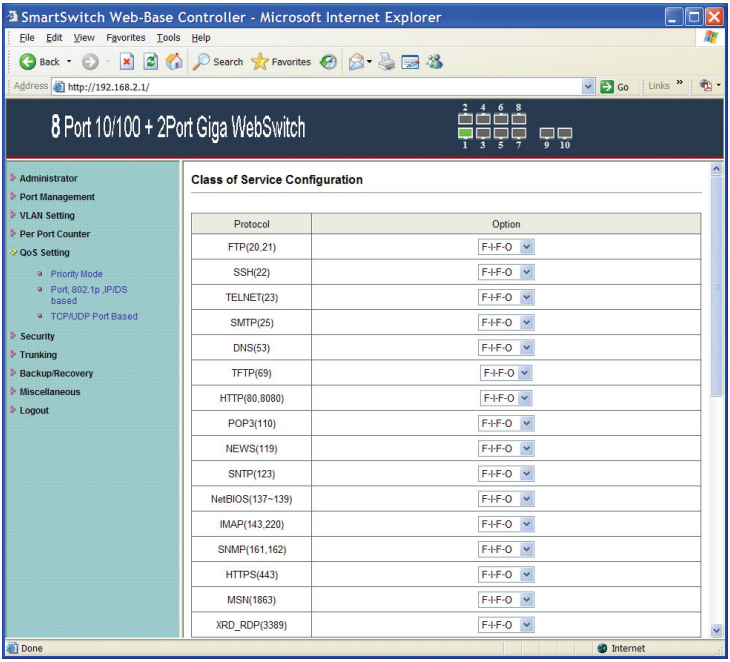
QoS Setting: Port, 802.1p, IP/DS Based

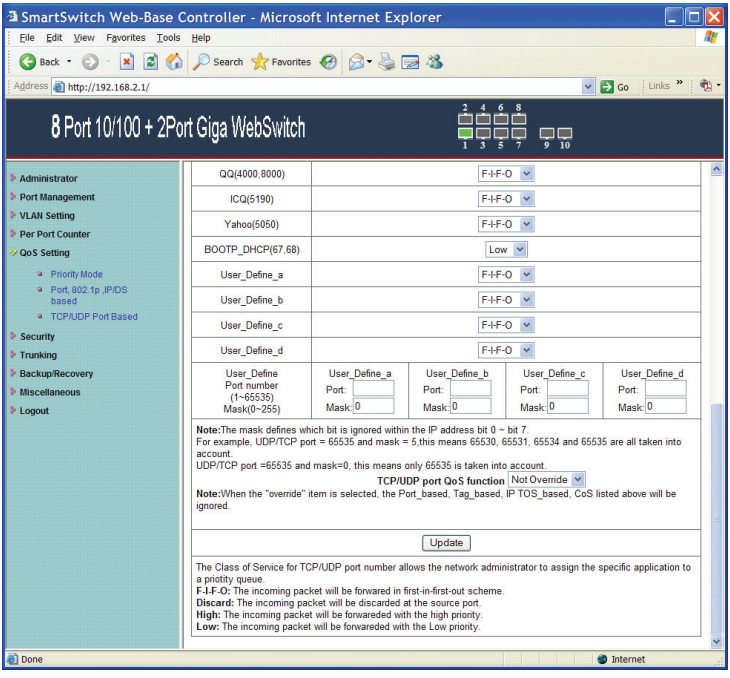


You can set QoS mode of per port by different bases.

1. “Port Base”: you can select the port which you want to configure as high priority. It means the packet of the port will be firstly transmitted.
2. “VLAN Tag”: you can select the port which you want to configure as high priority. It means the packet with special Tag will be firstly transmitted.
3. “IP/DS”: you can select the port which you want to configure as high priority. It means the packets with special IP will be firstly transmitted.
4. Click “Update” to confirm and finish the setting.

QoS Setting: TCP/UDP Port Based

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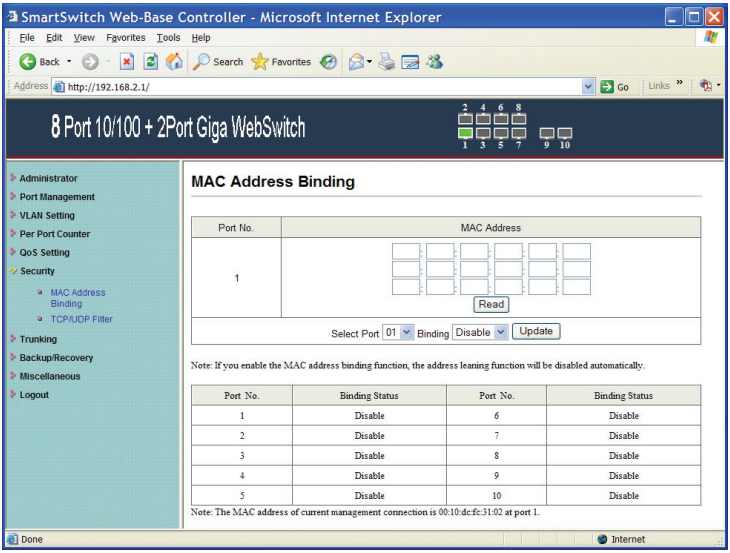
ICQ(5190)
Yahoo(5050)
BOOTP_DHCP(67,68)
User_Define_a
User_Define_b
User_Define_c
User_Define_d
F-I-F-O
Low
User_Define Port number (1~65535) Mask(0~255)
Port:
Mask: 0
Note:The mask defines which bit is ignored within the IP address bit 0 ~ bit 7.
For example, UDP/TCP port = 65535 and mask = 5,this means 65530, 65531, 65534 and 65535 are all taken into account.
UDP/TCP port =65535 and mask=0, this means only 65535 is taken into account.
TCP/UDP port QoS function
Not Override
Note:When the "override" item is selected, the Port_based, Tag_based, IP TOS_based, CoS listed above will be ignored.
Update
The Class of Service for TCP/UDP port number allows the network administrator to assign the specific application to a priotity queue.
F-I-F-O: The incoming packet will be forwared in first-in-first-out scheme.
Discard: The incoming packet will be discarded at the source port.
High: The incoming packet will be forwareded with the high priority.
Low: The incoming packet will be forwareded with the Low priority.
Done
Internet

Base on different protocol, you can choose four different types of Class of Service for each TCP/UDP port number First-in-First-out, Discard, High Priority or Law Priority to control the incoming packet.

Click “Update” to confirm and finish the setting.

Now, the setting of “Class of Service” is finished.

Security: MAC Address Binding

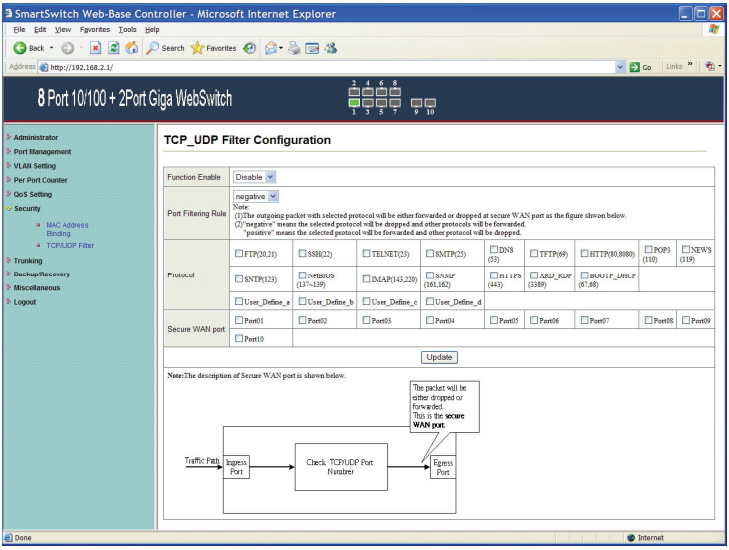


Set special MAC address to activate on the selected port.

1. Choose “Select Port” – port 1~10.
2. Binding – Enable: allow the packet with the specified source MAC address to enter this port.
3. Click “Update” to confirm and finish the setting.

Now, the setting of “MAC Address Binding” is finished.

Security: TCP/UDP Filter



You can enable or disable this function of per port.

If the “Function Enable” is “Enable”, please kindly check the following setting:

1. “Port Filtering Rule” –
   Negative: the outgoing packets to the selected port with selected protocol will be dropped and other protocols will be forwarded.
   Positive: the selected protocol will be forwarded and other protocols will be dropped.
2. Protocol – choose protocols which you want.
3. Secure WAN Port– choose secure ports which you want.
   **Note 1:
   a. The secure WAN port should be set at the physical port which is connected to the server.
   b. Once this function is enabled, the switch will

check the destination TCP/UTP port number at the outgoing direction of the secure WAN port.

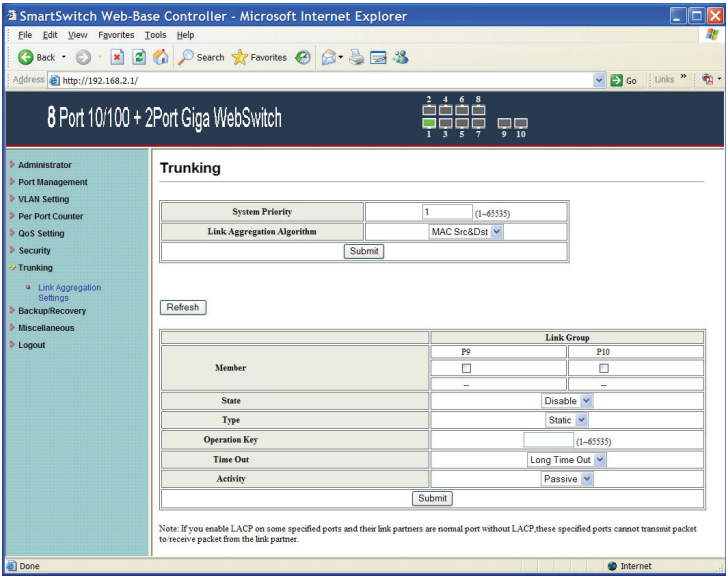
If the condition matches, this packet will be dropped or forwarded.

**Note 2: The description of Secure WAN port is shown on the bottom of this screen.

4. Click “Update” to confirm and finish the setting.

Now, the setting of “TCP/UDP Filter Configuration” is finished.

Trunk Setting: Link Aggregation Settings

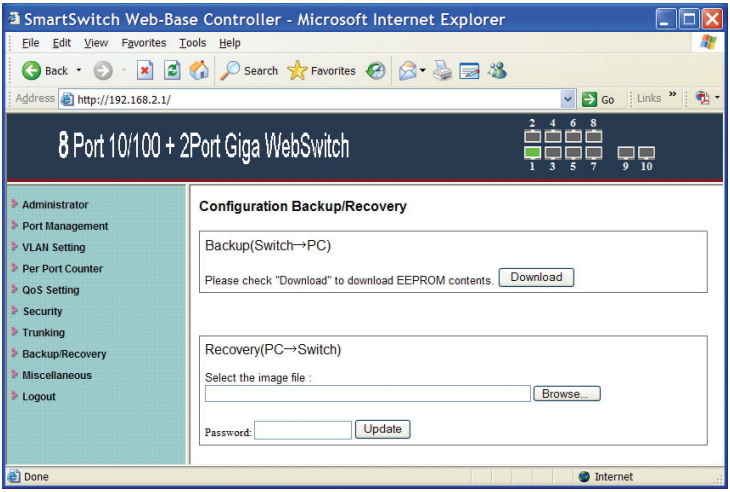


There is one group up to 2 ports.

Click “Submit” to confirm and finish the setting.

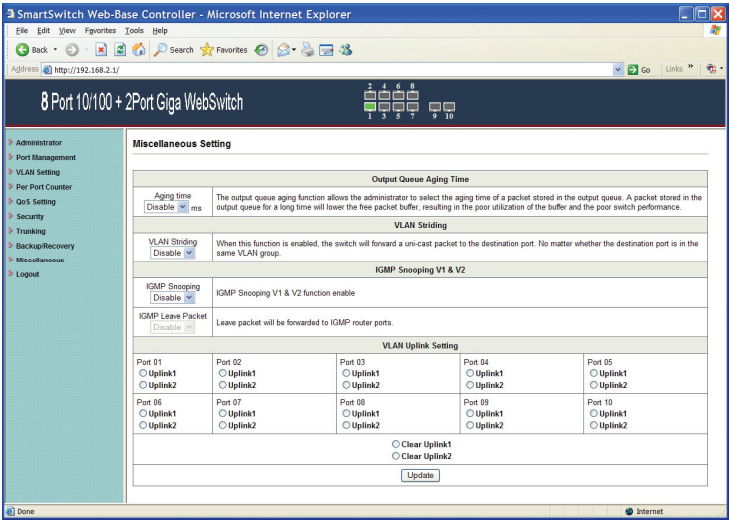
“State” – Enable / Disable.
“Type” – LACP / Static.
“Activity” – Active / Passive: **Both switches use “LACP” to configure the Trunk, at least one of them should be “Active”.**

Backup/Recovery



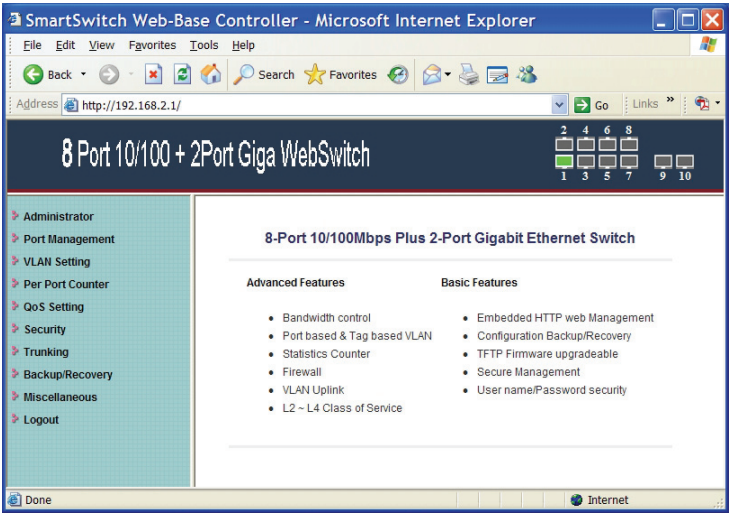
Follow the instruction on the screen to update the original setting.
“Backup” - Click “Download” to confirm the setting.
“Recovery” – selects a file and key in the password → Click “Update” to confirm the setting.

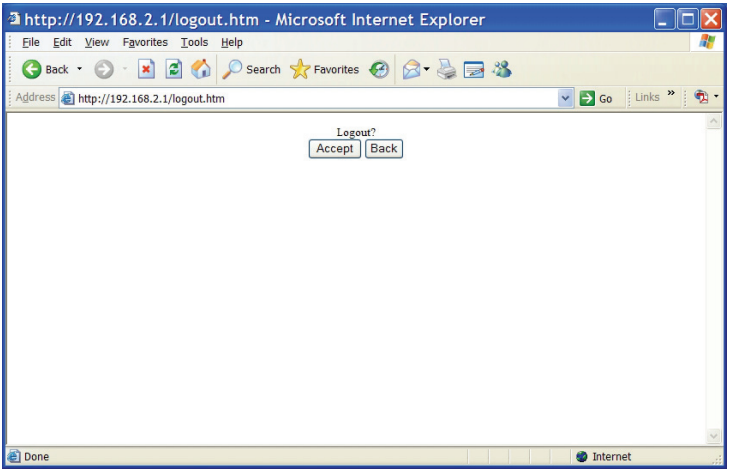
Miscellaneous


SmartSwitch Web-Base Controller - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.2.1/
Go Links
8 Port 10/100 + 2Port Giga WebSwitch
2 4 6 8
1 3 5 7 9 10
Administrator
Port Management
VLAN Setting
Per Port Counter
QoS Setting
Security
Trunking
Backup/Recovery
Miscellaneous
Logout
Miscellaneous Setting
Output Queue Aging Time
Aging time
Disable ms
The output queue aging function allows the administrator to select the aging time of a packet stored in the output queue. A packet stored in the output queue for a long time will lower the free packet buffer, resulting in the poor utilization of the buffer and the poor switch performance.
VLAN Striding
VLAN Striding
Disable
When this function is enabled, the switch will forward a uni-cast packet to the destination port. No matter whether the destination port is in the same VLAN group.
IGMP Snooping V1 & V2
IGMP Snooping
Disable
IGMP Snooping V1 & V2 function enable
IGMP Leave Packet
Disable
Leave packet will be forwarded to IGMP router ports.
VLAN Uplink Setting
Port 01 Uplink1 Uplink2
Port 02 Uplink1 Uplink2
Port 03 Uplink1 Uplink2
Port 04 Uplink1 Uplink2
Port 05 Uplink1 Uplink2
Port 06 Uplink1 Uplink2
Port 07 Uplink1 Uplink2
Port 08 Uplink1 Uplink2
Port 09 Uplink1 Uplink2
Port 10 Uplink1 Uplink2
Clear Uplink1
Clear Uplink2
Update
Done
Internet

1. “Aging Time”: You can set queue aging time into different milliseconds or disable this function.
2. “VLAN Striding”: You can enable/disable this function.
3. “IGMP Snooping V1 & V2” – You can enable/disable this function.
4. “IGMP Leave Packet” – You can enable/disable this function after “IGMP Snooping” is enabled.
5. “VLAN Uplink Setting” – Set “Uplink1 or Uplink2” or “Clear Uplink1” or “Clear Uplink2”.
6. Click “Update” to confirm and finish the setting.

Logout





You can click “Accept” to logout.